

WHAT IS CLAIMED IS:

1. A semiconductor integrated circuit device comprising:

(a) an actual input circuit;

5 (b) an actual output circuit;

(c) a replica input circuit having the same characteristics as those of said actual input circuit;

(d) a replica output circuit having the same characteristics as those of said actual input circuit;

10 (e) an oscillating circuit which operates in accordance with external triggers; and

(f) a skew-comparing circuit which compares a signal transmitted from said oscillating circuit and passing through said actual input circuit and said actual output circuit, to a signal transmitted from said oscillating circuit and passing through said replica input circuit and said replica output circuit to detect a delay error between said actual input and output circuits and said replica input and output circuits,

wherein delays in said replica input and output circuits are compensated for in accordance with said delay error detected by said skew-comparing circuit.

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2. A semiconductor integrated circuit device comprising:

(a) an actual input circuit;

(b) an actual output circuit;

25 (c) a replica input circuit having the same characteristics as those of said actual input circuit;

(d) a replica output circuit having the same characteristics as those of said actual input circuit;

(e) an oscillating circuit which operates in accordance with external triggers; and

(f) a skew-comparing circuit which compares a signal transmitted from said oscillating circuit and passing through said actual output circuit, to a signal transmitted from said oscillating circuit and passing through said replica output circuit to detect a delay error between said actual output circuit and said replica output circuit,

wherein delay in said replica output circuit is compensated for in accordance with said delay error detected by said skew-comparing circuit.

3. In a semiconductor integrated circuit device including (a) an actual input circuit, (b) an actual output circuit, (c) a replica input circuit having the same characteristics as those of said actual input circuit, and (d) a replica output circuit having the same characteristics as those of said actual input circuit,

a method of detecting a delay error between said actual input and output circuits and said replica input and output circuits, including the steps of:

(a) transmitting a reference signal;

(b) having said reference signal passed through said actual input and output circuits;

(c) having said reference signal passed through said replica input and output circuits; and

(d) comparing said reference signal in said step (b) to said reference signal in said step (c) to detect said delay error.

4. In a semiconductor integrated circuit device including (a) an actual input circuit, (b) an actual output circuit, (c) a replica input circuit having the same characteristics as those of said actual input circuit, and (d) a replica output circuit having the same characteristics as those of said actual input circuit,

a method of detecting a delay error between said actual input and output circuits and said replica input and output circuits, including the steps of:

(a) transmitting a reference signal;

(b) having said reference signal passed through said actual output circuit;

(c) having said reference signal passed through said replica output circuit;

and

(d) comparing said reference signal in said step (b) to said reference signal
5 in said step (c) to detect a delay error between said actual output circuit and said
replica output circuit.